

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application.

Claim 1 (Currently Amended): An etching method for etching an etching target film formed on an SiO<sub>2</sub> film placed inside an airtight processing chamber, the method comprising:

introducing a processing gas into said airtight processing chamber, wherein said processing gas contains N<sub>2</sub> and at least one of C<sub>4</sub>F<sub>8</sub> and CF<sub>4</sub>; and

generating a plasma in said airtight processing chamber for etching said etching target film, wherein said etching target film is an organic film containing Si formed on said SiO<sub>2</sub> film, wherein a resist is used as a mask on said etching target film, and wherein said etching target film is etched until said SiO<sub>2</sub> is exposed ~~as an etch stopper~~.

Claim 2 (Original): An etching method according to claim 1, wherein: said organic film containing Si is constituted of SiO<sub>2</sub> containing C and H.

Claim 3 (Original): An etching method according to claim 1, wherein: the dielectric constant of said organic film containing Si is equal to or lower than 3.0.

Claim 4 (Original): An etching method according to claim 1, wherein: said organic film containing Si is an organic polysiloxane film.

Claim 5 (Original): An etching method according to claim 1, wherein: said processing gas further contains Ar.

Claims 6-12 (Canceled).

Claim 13 (Canceled).

Claim 14 (Currently Amended): An etching method for etching an etching target film formed on an SiO<sub>2</sub> film placed inside an airtight processing chamber, the method comprising:

introducing a processing gas into said airtight processing chamber, wherein said processing gas contains at least CF<sub>4</sub> and N<sub>2</sub>, wherein the flow rate ratio of CF<sub>4</sub> and N<sub>2</sub> in said processing gas is essentially set within a range of  $1 \leq (\text{N}_2 \text{ flow rate} / \text{CF}_4 \text{ flow rate}) \leq 4$ ; and

generating a plasma in said airtight processing chamber for etching said etching target film, wherein said etching target film is an organic film containing Si formed on said SiO<sub>2</sub> film, wherein a resist is used as a mask on said etching target film, and wherein said etching target film is etched until said SiO<sub>2</sub> film is exposed as an etch stopper.

Claims 15 and 16 (Canceled).

Claim 17 (Currently Amended) An etching method for etching an etching target film formed on an SiO<sub>2</sub> film placed inside an airtight processing chamber, the method comprising:

introducing a processing gas into said airtight processing chamber, wherein said processing gas contains  $N_2$  and at least one of  $C_4F_8$  and  $CF_4$ ; and

generating a plasma in said airtight processing chamber for etching said etching target film, wherein said plasma forms contact holes at said etching target film, and wherein said etching target film is an organic polysiloxane film containing Si formed on said  $SiO_2$  film, wherein a temperature of a bottom portion of at least one of the contact holes is maintained at about  $-20^\circ C$ , a temperature of an opening portion of at least one of the contact holes is maintained at about  $30^\circ C$ , and a temperature of a sidewall portion of at least one of the contact holes is maintained at about  $50^\circ C$ .